Volume 303 **CONTENTS** 25 November 1995

Effects of interaction between Marangoni and double-diffusive instabilities. J. TANNY, C. C. CHEN and C. F. CHEN *page 1*

Experimental study of interfacial long waves in a two-layer shear flow. PIERRE BARTHELET, FRANÇOIS CHARRU and JEAN FABRE 23

Transverse instability of plane wavetrains in gas-fluidized beds. M. F. GÖZ 55

The unsteady motion of solid bodies in creeping flows. J. FENG and D. D. JOSEPH 83

Solidification of a binary alloy of variable viscosity from a vertical boundary. RICHARD A. JARVIS and HERBERT E. HUPPERT 103

Unsteady flow about a sphere at low to moderate Reynolds number. Part 2. Accelerated motion. EUGENE J. CHANG and MARTIN R. MAXEY 133

The structure of highly sheared turbulence. F. A. DE SOUZA, V. D. NGUYEN and S. TAVOULARIS 155

On improving a one-layer ocean model with thermodynamics. P. RIPA 169

Stability of linear shear flows in shallow water. CHARLES KNESSL and JOSEPH B. KELLER 203

Viscous oscillatory flow about a circular cylinder at small to moderate Strouhal number. H. M. BADR, S. C. R. DENNIS, S. KOCABIYIK and P. NGUYEN *215*

Inertial wave dynamics in a rotating and precessing cylinder. J. JONATHAN KOBINE 233

Boundary-layer analysis of the thermal bar. ANTHONY KAY, H. K. KUIKEN and J. H. MERKIN *253*

A numerical model of the hydrodynamics of the thermal bar. DUNCAN E. FARROW 279

On two approaches to the problem of instability of short-crested water waves. SERGEI I. BADULIN, VICTOR I. SHRIRA, CHRISTIAN KHARIF and MANSOUR IOUALALEN 297

Instabilities and the formation of bubbles in fluidized beds. K. ANDERSON, S. SUNDARESAN and R. JACKSON 327

Asymptotic theory of high-aspect-ratio arched wings in steady incompressible flow. G. IOSILEVSKII 367

INDEX TO VOLUME 303 378